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ALBERTA

LANDS - FORESTS - PARKS - WILDLIFE

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Alberta

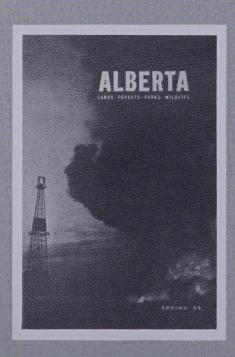
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DEDICATED TO THE WISE USE AND MANAGEMENT OF THE PROVINCE'S RENEWABLE NATURAL RESOURCES; ITS LAND, FORESTS, PARKS AND WILDLIFE.

ABOUT OUR COVER



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ALBERTA

Lands - Forests - Parks - Wildlife

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CONTENTS

Pa	ige
Upland Game Birds	3
Alberta's Public Lands	16
Color—What Is Seen 24,	25
Lost Logger's Railway Found	26
Fish Parasites	34
Bad Black White Man	38
Do-It-Yourself	47

PHOTO CREDITS

Alberta Government Front Cover, Back Cover Pages 16, 20, 22

Railway Story

Mrs. Ade Pages 26, 27, 28, 29, 30, 31, 32, 33

John Ware Story
Glenbow Foundation
Pages 41 and 45
Provincial Parks
Page 42

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HON. HENRY A. RUSTE, Minister

> V. A. WOOD, Deputy Minister



GAIVIE BIRDS

ALBERTA'S UPLAND BIRD POPULATION IS BROKEN DOWN INTO TWO GROUPS OR CATEGORIES . . .

(A) NATIVE

Native birds are distinguished from the introduced variety by completely feathered legs and, in winter, rows of small scales or pectinations on either side of their toes. These form a kind of snowshoe which enable the birds to walk upon deep snow.

Feathers also protect the nostrils and generally a small bare area appears above the eye.

Alberta has eight varieties or species of natives:

- White Tailed Ptarmigan
- Willow Ptarmigan
- Blue Grouse
- Spruce Grouse
- Ruffed Grouse

- Sharp Tailed Grouse
- Pinnated Grouse
- Sage Grouse

(B) NON NATIVE

These are fowl-like birds with legs, toes and nostrils bare of feathers. Some species have legs equipped with spurs.

Generally the introduced bird has a more spectacular coloration than the native bird and will usually be found only in habitat favorable to its survival.

Four species have been introduced into the province:

- Ring Necked Pheasant
- Hungarian Partridge
- Chukar Partridge
- Merriams Turkey



WILLOW PTARMIGAN

Identification

Large amounts of white on wings and black tail are the best field marks in the summer. In winter, all white except black tail which usually shows only in flight.

Range

Mostly north of tree limits in summer, in winter they migrate into Northern Alberta, occasionally as far south as the northern edge of the prairies.

Nesting

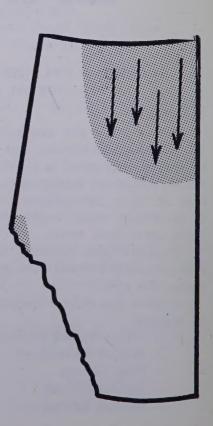
On the ground. Nest of grass, leaves and feathers. Eggs seven to ten, yellowish or brownish, spotted with rich reddish browns.

Food

Generally berries, grass and weed seeds, but may feed upon domestic grains during their winter migration southward.

Remarks

During the mating and nesting period the male establishes a territory and does battle with any other male that may enter his domain. Like most grouse, he is quite vocal at this time and emits a variety of booms and hoots. The downy young follow their mother from the nest a few hours after they hatch. Their colors blend in extremely well with the mosses allowing them to go unnoticed by predators.





WHITE TAILED PTARMIGAN

Identification

A small grouse. In summer mottled with browns, blacks and whites. Shows white wings and tail in flight, in winter entirely white.

Range

Mountains of Western North America, from Alaska to Mexico. Breeds throughout range.

Nesting

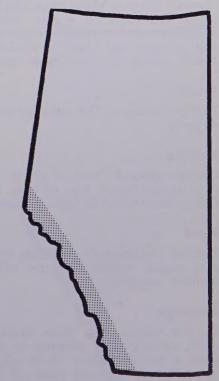
On the ground. Nest of grasses and feathers. Eggs usually six to eight, buffy with fine spots of darker browns.

Food

The White Tailed Ptarmigan's diet consists mainly of berries, weed and grass seeds. However, during the deep snows of winter, they may migrate to lower elevations and feed upon domestic grain.

Remarks

The White Tailed Ptarmigan is found only in the mountains at high levels. The young sense that movement is more easily detected than color, and remain motionless until the mother clucks an all clear.





BLUE GROUSE

Identification

Overall color is slate gray, darkest on the back, somewhat brownish on wings, white on the throat and abdomen, white tips on feathers on sides and under tail coverts, tail black, occasional gray terminal band. Small yellowish comb over eye.

Range

Fairly common throughout the mountain regions of Alberta.

Nesting

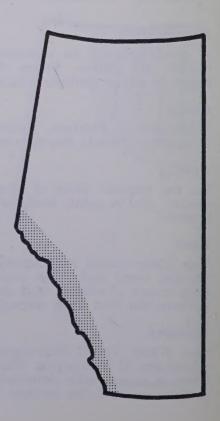
On the ground. Nest of grass, leaves and pine needles near fallen log or foot of tree. Eggs, five to ten, buffy, finely spotted with light brown.

Food

During the summer, the diet consists mainly of berries and small insects. In the winter, mainly buds and conifer needles.

Remarks

In the spring, the male struts about like a turkey cock, occasionally pausing to fill his nuchal sacs and emit a gutteral hoot. Both adult and young are quite tame, but if alarmed, take off with a startling suddenness in rapid flight.





SPRUCE GROUSE

Identification

A small, very dark grouse found in thick stands of spruce and pine. Male—crown, back and wings dusky brown to dusky blue, each feather is finely barred with black. Face is black, a white line behind eye and a scarlet comb above. Throat is black, sometimes marked with white, remaining or underparts black with white barring.

Range

Generally throughout the conifer forests of Alberta.

Nesting

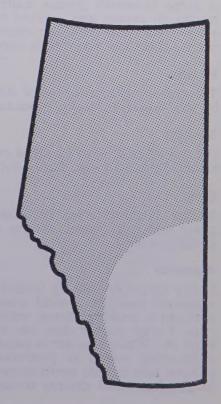
On the ground. Nests of leaves and grasses in the moss under low hanging branches of a spruce tree. Eggs, 8 to 10, or 16, usually light brown beautfully marked with dark browns.

Food

In the winter much of their diet is made up of conifer needles. During the summer and autumn, they eat on the ground upon insects, leaves and berries.

Remarks

The Spruce is a subspecie of the Franklin Grouse. At the approach of an enemy they flutter into the branches of a conifer, relying upon their protective coloration and immobility to make them inconspicuous. Known as "Fool Hen".





SHARP TAILED GROUSE

Identification

A large brownish grouse, mainly white below with V marks on breast and pointed tail. In flight, the white sides of the tail make an excellent field identification mark. Male has an orange comb over the eye.

Range

Throughout the province of Alberta, but fairly scarce in the Western Rocky Mountain Region.

Nesting

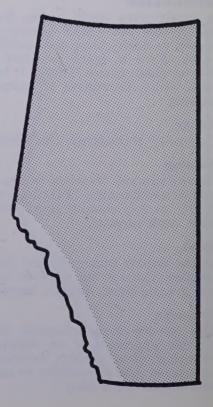
On the ground. Nest of grass concealed in grass or low brush. Eggs 10 to 14, finely dotted with reddish brown.

Food

In the farming areas of Alberta, his fare is mostly grain and grass seed. In the wooded regions, berries and grass seed.

Remarks

Every spring the Sharp Tailed Grouse gather on their ancestral dancing ground where, at dawn, the males perform a courting dance with much pomp and strutting. Large purple sacs on their necks are inflated with air. When this air is expelled through the mouth, a booming sound is produced. The female plays a passive role in this performance . . . they take no part in the dance but mating occurs here.





RUFFED GROUSE

Identification

Head crested, a ruff of glossy black feathers on each side of the neck, fairly long tail with a black band near tip of tail are most prominent distinguishing marks of this bird.

Range

Forested regions throughout Alberta.

Nesting

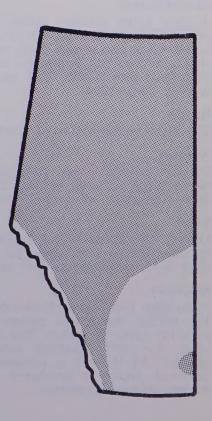
On the ground, nest of leaves and grass usually near or under a fallen log or root. Eggs, 8 to 14, buff, unspotted.

Food

Diet is varied, in the winter it consists of poplar and willow buds, domestic grains and rose hips. In summer and autumn on weed seeds, grain and quantities of green vegetation.

Remarks

It is more solitary in its habits than any other species of grouse; small family groups may be found in early fall but these soon break up. In the spring the male displays upon a log. "Ruffs" extended, wings trailing and tail spread, from time to time he beats his wings against the air to produce a noise like the muffled roll of a drum. Occasionally he may drum in the fall.





SAGE GROUSE

Identification

A very large grouse: males may weigh up to seven pounds. Crown and hind neck gray, finely marked with black, back and wings gray, many feathers with white shafts and all but primaries finely barred or splotched with buff and black. The large black stomach patch is very distinctive.

Range

The sage brush plains of South Eastern Alberta.

Nesting

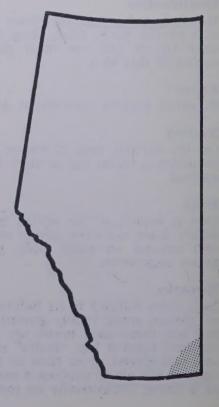
On the ground—nest of grass and leaves usually in the shelter of sage brush. Eggs, 7 to 15, olive-buff with fine spots of dark brown.

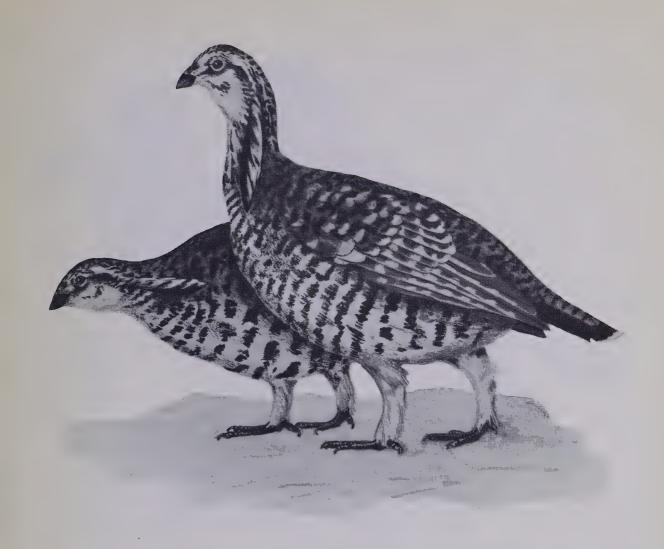
Food

During the autumn and winter the bulk of their food is sage leaves and buds. In the spring and summer they feed upon insects and grasses.

Remarks

Sage hens form large flocks during fall and winter. In the spring the males gather at dawn to perform a peculiar type of dance. The nuchal sacs are inflated until the stiff feathers covering them scrape the ground. As the air is released through the mouth, a gutteral grunt is produced. The female is ignored during this performance.





PINNATED GROUSE

Identification

A large brownish grouse strongly barred below with short, square tail. Throat, buffy with a few brown spots at sides. The long feathers on sides of neck are positive identification.

Range

Once found throughout the great plains of North America, now only occasional sightings are noted in the central prairie regions.

Nesting

On the ground. Nest of grass concealed in tall grass or low bushes. Eggs, 8 to 18, buffy olive, sometimes finely marked with brown.

Food

Much of his food, summer diet, is made up of insects, primarily grasshoppers. In the winter grain is the main substance.

Remarks

The Pinnated or true Prairie Chicken was a migrant, spending the summer in the central prairies and migrating to the Dakotas or Minnesota for the winter. The Pinnated has been most often mistaken for the Sharp Tailed . . . no authentic sightings have been made in Alberta in recent years.





HUNGARIAN PARTRIDGE

Identification

A small brownish partridge with light brown face and throat, usually some evidence of chestnut horseshoe on the lower breast. In flight the chestnut tail feathers are obvious.

Range

Introduced into Central and Southern Alberta, they are quite common in the prairie and parkland regions of Alberta.

Nesting

On the ground, nest of grass, concealed in grass or low bushes. Eggs, 10 to 22, olive or olive buff, unmarked.

Food

Domestic grain, weed seeds, leaves or grasses and berries.

Remarks

Huns run and fly fast, hide well and rise with a disconcerting racket which unnerves the hunter. Since the Hun did so well in the southern part of Alberta, they have been recently introduced into the Peace River district. A mature bird seldom weighs more than 15 to 16 ounces, however, the flesh is highly prized by the connoissuer.





CHUKAR PARTRIDGE

Identification

Similar to Hungarian Partridge but much grayer. Unmarked on back, a black line across forehead through eye and over ear, becomes very broad down side of neck and across upper breast: breast bluish gray. Beak orange and legs are red.

Range

Introduced into Alberta in 1954 in the extreme south portion of the province, along the Milk River.

Nesting

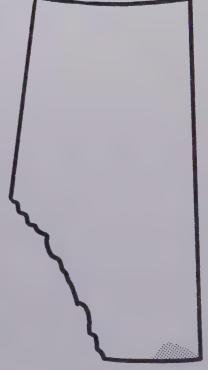
On the ground, nest of grass and leaves lining a shallow depression, usually well hidden in vegetation. Eggs, 10 to 13, yellowish white speckled with brown.

Food

Weed seeds, berries and some domestic grains.

Remarks

Like the 'Hun' the Chukar is a ground dwelling specie but prefers scrubby wasteland and grassy pastures to cultivated fields. Unlike the 'Hun' it occasionally perches on fence posts and trees. In the autumn coveys of varying size are formed: these do not break up until the following spring.





RING NECKED PHEASANT

Identification

The male is a large bird with a very long tail, brightly colored in irridescent purple on the head and neck: irridescent bronze and black on the body, usually a white ring around the neck. The male has spurs on the inside of the lower leg. The female resembles the Sharp Tailed Grouse but is more buffy in color and lacks patches of pure white: legs are unfeathered.

Range

The 'Ring Neck' was first introduced into Alberta in 1908 in the Calgary area. They have adapted reasonably well and are generally found in the central to southeastern part of Alberta.

Nesting

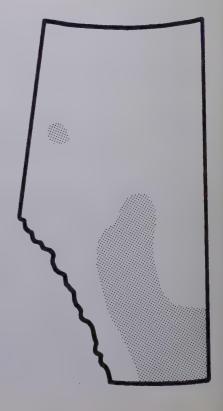
On the ground, nest of grass, leaves and weeds, concealed in tall grass or low bush. Eggs, 6 to 12, olive or buffy in color.

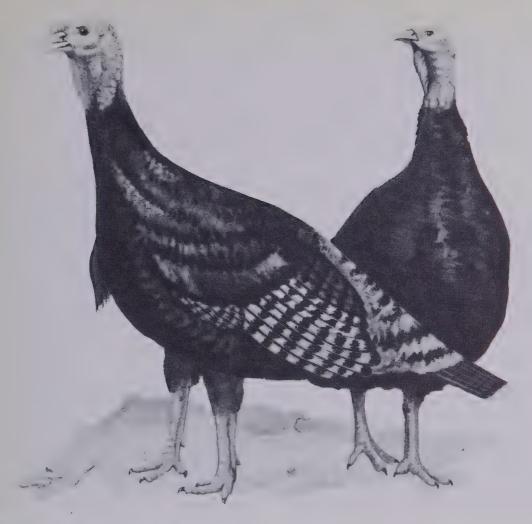
Food

Domestic cereal grains make up the bulk of their food with insects, grass, sprouts and berries completing their fare.

Remarks

Many releases have been done in Alberta with a relatively low ratio of success. They seem to do best in those regions where there is plenty of tight cover close to cultivated fields. Tangled willows, rose bush, and clover, bordering streams or irrigation ditches, is ideal.





MERRIAMS TURKEY

Identification

The general appearance of the turkey is very similar to the domestic Bronze Turkey. The Merriam has not much cinnamon brown on the top of the tail, and the tips of the tail and tail coverts are whitish or buff instead of brown. The rump is velvety black.

Range

Portions of Southern Alberta, the Cypress Hills and the Porcupine Hills appear to form a favorable habitat.

Nesting — On the ground.

Food

It is a bird of the coniferous forest and forest openings. Food consists of a large diet of fruits, grain, green vegetation and insects. During fall and winter months in Southern Alberta, the birds must rely on dried berries, weed seeds and waste grain from the occasional adjacent grain field. Because this bird is a ground feeder it cannot cope with continued deep snow conditions. Water should be available throughout the year.

Remarks

This large bird was introduced to the Cypress Hills of Alberta from South Dakota in 1962. The 15 birds released increased during the summer of 1962 to about 50 birds.

The turkey is native to the Central United States. The original range of the Wild Turkey was from Southern Mexico through New England to Eastern Canada and west to include 39 of the United States. Primarily a bird of open forests, it was unable to withstand deforestation and other advances of civilization.



Alberta's Public Lands

BY DR. V. A. WOOD, DEPUTY MINISTER, DEPT. OF LANDS AND FORESTS

In the physical sense the amount of land available on the earth is fixed. Man cannot increase the physical amount although he can increase or decrease the usable amount by the way he manages and takes care of the land available.

The importance of land to man, which for our definition includes water, can be appreciated when we stop to consider what it is used for.

Land provides space for man to locate, i.e. to build homes, construct cities, highways, etc.

Land provides space for the animal kingdom and the plant kingdom to live, without which man could not live. In the case of the plant kingdom land also provides the basic nutrients for plants to grow and develop. Since plants are the basis of man's food supply, directly

as grains, vegetables, etc., or indirectly as meat, then land may be considered as basic to life itself.

Land provides the source for man to obtain wood, coal, oil, metals and most of the products and elements which are essential for his welfare.

Land provides man with the parks and fish and wildlife for his enjoyment and the enrichment of his life.

Since the physical amount of land does not change but the numbers of man do change, and are increasing, the importance of how man uses the land available becomes more apparent. No matter how much man makes progress in the arts, the sciences, technical skills, etc., unless he can learn how to conserve and use the land wisely he will perish and the nation will fall. History shows that it has happened and it can do so again.

The population of the world is estimated to be increasing by 2% or by 60 million per year. This means that each year the world's population increases by 3 times the population of Canada. Theoretically, considering the earth as one unit, the land resources of the world which are not increasing must therefore be redivided amongst this extra 60 million people each year. The current world population is approximately 3.4 billion. By the year 2000, only 31 years away, the population is estimated to be 6.3 billion, or about double the present population. Since the physical amount of land will not have increased by the years 2000, therefore in order for man to feed the extra people he will have to increase the usable supply of land or increase the production through technological advancements in all phases of production for both plants and animals. The alternative of course, is starvation for millions of people. The whole problem of food production and population is further complicated when it is realized that the richer areas of the earth which include North America, Europe, and Russia in Asia, contain about 30% of the world's population and this 30% produces about 90% of the world's output of industrial goods. The bulk of trade in manufactured goods is between this 30% of the world's population, while the remaining 70% virtually isolated from reasonable living standards.

It is not the intention to get into a discussion of world population and world food problems other than to point out some of the relationships of population to the physical land resource and to emphasize the importance of the land to man and the necessity for man to use it wisely.

Closer to home, there are changes taking place in our social and population structure that have a direct relationship to land use. The population of Canada has doubled in the last 30 years. In the U.S.A. 6% of the population is engaged in farming as compared to 15.3% in 1950, just 19 years ago. By 1980 it is predicted that only 4% of the population will be engaged in farming. In Canada approximately 10% of the

population is engaged in agriculture and the number is expected to decrease similarly as in the U.S. In the report of the National Advisory Commissioner on Food and Finance held in Washington in 1967, the Commission found that the main problem of U.S. Agriculture was excess capacity both in arable land and manpower. Advanced technology is being adopted more quickly than labor moves out of agriculture, resulting in under employment and low incomes in relation to other groups. In the U.S. in 1820, one farmer only produced enough to feed himself and 3 others: in 1960 one farmer produced enough to feed 26 and by 1965 this increased to 35. By the year 2000 it is estimated that one farmer will produce enough to feed 150 to 200 people. It is estimated that by 1980 farm output in the U.S. will be 47% higher than in 1960. Yield per acre is doubling every 32 years.

While this is true for the U.S. and probably for Canada, it is an entirely different picture in most of the "have not" or developing nations of the world which have the biggest share of the world population. In these areas population is increasing faster than food supplies and unless conditions change drastically mass starvation is likely to occur.

Thus while in many parts of the world there are deficiencies in food production in other areas there is a surplus capacity to provide food products.

In the Province of Alberta the number of people engaged in agriculture is decreasing and the number of farms is decreasing. There were 89,541 in 1946 as compared to 69,411 in 1966. The size of farms is increasing, 460 acres per farm in 1946 compared to 706 acres per farm in 1966. The decrease in number of farms was about 23%. The increase in average size was over 50%. Also the proportion of rural to urban populations is decreasing but the total population is increasing.

These trends in Alberta tend to have the following effects on land use and on the administration of public lands.

1. The overall increase in population in Alberta combined with the static

physical supply of land is increasing the demand for land generally, which has caused an increase in land values.

- 2. The increase in the demand for land is not entirely for agriculture or forest purposes, in fact, this demand is probably slowing down due to several factors. Looking into the future it is not expected the demand for land for agriculture and forestry will necessarily decrease but may increase as the demand increases for food and lumber and wood products. The increase in production through technological advancements may more than meet the demand for more agriculture and forest products and it may not be necessary to use a larger area of land.
- 3. During the last 10 years the population has increased about 30% and the average income in Alberta has increased over 44%. While there has been some inflation during this period, nevertheless there has been a substantial increase in net income. These factors have given a substantial increase in the demand for land for housing, highways, buildings, industrial and recreational purposes. In addition the increased population and income has increased the number of hunters and fishermen and here again there is an increasing demand for water and land areas to be made available for the production of fish and wildlife, plus lands for general outdoor recreation activities. In 1957 there were just over 100,000 fishing licences sold in Alberta. By 1967 this had increased by 23% to 123,000. In 1957 there were 101,971 game licences sold as compared to 209,879 by 1967, an increase of over 100%. During this same 10 year period the number of Provincial Parks has increased from 29 to 44 and the attendance at Provincial Parks has increased from approximately 850,000 in 1959 to almost 4 million in 1967, an increase of over 350%.

With this background let us look more specifically at the administration of Alberta's public lands.

There are 163 million acres of land in Alberta, about 37% of it privately owned. Just over 10% is held by the Federal Government in Parks, Indian Reserves, Experimental Stations, etc. This leaves a balance of 53% which is still owned by the Province of Alberta.

Of the 53% only about 9 or 10 million acres are presently held under lease or sale agreement from the Department of Lands and Forests. This does not include the areas held under timber lease, timber quotas, etc. It is estimated that north of the 55th parallel there is an area of approximately 7 million acres of virgin land which would rate fair to fairly good arable land or better, that is still available for settlement purposes. This land is situated both north and south of the Peace River, extending from the British Columbia boundary to the Fort Vermilion district.

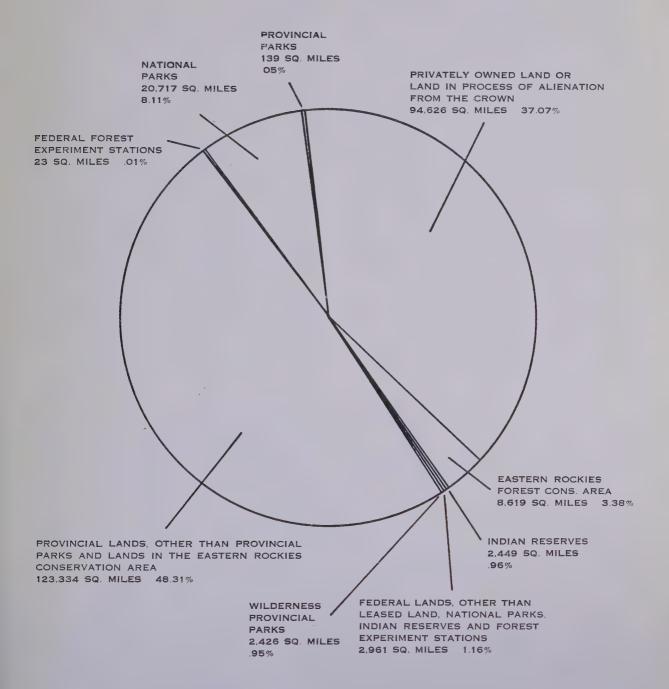
It is also estimated that in this area there would be approximately 6 million acres classified as poor arable land which would require careful farming practices in order to be satisfactorily developed.

About 4 million acres of land is occupied which could be developed for cultivation but is presently bush land.

To administer the public land the Department of Lands and Forests is divided into four main Administrative Divisions—Lands, Forests, Fish and Wildlife, and Parks. In addition there are several service divisions, such as, Accounts, Technical, Registration, Personnel, and Information and Education.

The general objective of the Department is to administer the land for the benefit and welfare of the present and future citizens of the province. Expressed in another way, this means putting the land to its best use, or most productive use, for present and future generations, which of course means applying conservation principles.

This objective is put in effect by establishing laws and regulations for the administration of the public or Crown land. These laws and basic principles for administration are set out in the four respective Acts and the regulations established under the Acts. The four main Acts are: Lands Act, Forests Act, Game Act and Parks Act.



To develop the principles and establish the laws to administer the land resources in accordance with the stated objectives requires three basic steps:

- 1. **Inventory** To determine what land resources are available, their potentialities and capabilities.
- 2. Planning and policy making To formulate a plan and detailed policy for the administration of the land resources.
- 3. Administration The putting into actual operation the plan de-

veloped. This entails the establishment of the Acts or laws by the Legislative Assembly and regulations made under the Acts by the Executive Council.

Inventory — For many years surveys have been carried out covering the land areas of the province to determine lands suitable for agricultural purposes and to determine our timber resources and lands suitable for timber production.

Under the Federal-Provincial ARDA Agreement an integrated inventory of

Canada's land resources was one of the first major programs initiated. The inventory is divided into five sectors: Agriculture, Forestry, Recreation, Wildlife and Present Land Use. The inventory was considered as a prime requisite for meaningful land use planning.

In Alberta the inventory for Agriculture and Forestry are well advanced. While inventories in connection with Recreation and Wildlife are presently being carried out there is still much work to be done in these areas. In connection with recreation the Department of Lands and Forests has been conducting a lake inventory for several years and has reserved many areas for future potential park and recreational development.

Planning and Policy Making — The second step in developing a Coordinated Land Policy is planning. In developing a plan for land use one must determine

the needs and demands of the public and try to develop a plan to utilize the lands according to their capabilities to satisfy, as far as possible, these needs. This is more difficult than taking a physical inventory as it requires many judgment decisions. Under the land inventory it may be found that the same area of land is suitable to be used for Agriculture, Forestry, Recreation and Wildlife. It is the responsibility of the planner to decide which of these the land should be used for. It may be decided that the land in question should be utilized on a multiple use basis. An example of the multiple use concept is in the Eastern Rockies Forest Conservation Area where water conservation is considered as the primary use of the land, but at the same time the land is used for timber production, grazing of livestock, the production of game and for other recreation purposes, such as camping, fishing, etc.

MIXED FARMING AT HIGH RIVER



To correlate all of these uses into an acceptable operational policy for administration purposes, can create many problems because of the varying interests and demands of the people who wish to use the land.

Because of the increase in population and the industrial development taking place in the province during the last 10 to 15 years, there has been a definite increase of pressure on land use.

We are now continually faced with the problem of weighing the relative values in returns to the people and in satisfying their needs when the land is used for different purposes, such as for agriculture, forestry, raising wildlife, or being used for other recreation or commercial purposes. In making the decision of what land use to follow for a particular area of land we must also consider principles of conservation to ensure the land can be used for whatever purpose that is decided, for an indefinite period, without a loss in its productive capacity. This certainly increases the problem of the land administrator as each land disposition is likely to be challenged not only by the people who compete for use of the land for the same purpose but by other persons who wish to use the land for other purposes. This usually means that no decision is acceptable to all of the intended land users. Therefore, it is necessary to have a set of basic principles to follow in arriving at each decision and to follow these principles as consistently as possible whenever similar cases arise.

Such factors as the physical potential of the land, the economic and recreational benefits, must all be considered. The human and sociological factors must also be carefully considered. Land has often a special significance or value to an individual that cannot be measured in dollars and cents; it is his home, the place where his family was raised and even though it may be a poor location, if the person has become attached to it the land administrator must take these factors into consideration before trying to change the present use of the land to what may be considered a better use.

Another question that arises is whether the land rights should be dis-

posed of at the full market value. Many people object to the sale of the rights by public tender which usually insures a fair market value. However, if land rights are not disposed at the market value then there is the question of justification of such a policy which in effect is subsidization and the department must weigh the benefit to the individual who obtains the land rights at below market price as compared to the loss to society as a whole, Also, if such a policy is adopted there is the added problem of selecting who should get the rights at below market cost.

In developing the plan for land use many other Departments of the Government become involved. For example, if the Department of Lands and Forests wishes to open up a township in Northern Alberta for settlement the Department of Education will be involved as they would be required to supply school facilities, the Department of Highways would be directly involved in building of roads, Water Resources are interested in drainage, Municipal Affairs are responsible for taxation, etc.

With the foregoing in mind let's examine briefly the present policy of the Department of Lands and Forests.

The Department has a classification committee which divides the land into broad land use areas: green, yellow and white areas. This classification is based mainly on the soil classification. Basically it is a zoning for administration purposes and does not affect privately owned lands.

Lands Division

Once land has been placed in the yellow or white zone or settlement zone, no dispositions are made without a careful inspection of each individual quarter section. All dispositions are made subject to the laws which affect planning, such as, The Town & Rural Planning Act, The Highways Act, The Water Resources Act, etc.

It is the policy of the Lands Division to dispose of the land under The Public Lands Act and various regulations established, in such a way as to assist farmers to establish economic farm



WILDERNESS

units. For many years it has been the policy to reserve from sale for conservation purposes those areas which are subject to erosion and other areas classified as being unsuitable for agriculture. Recently the Lands Division has adopted a policy of reserving by easement, areas along water courses which should be left in their natural state for wildlife habitat and the prevention of silting of rivers and streams.

The policies as set out in the Act and regulations are continually being reviewed and amended as a result of meetings and representations made by various organizations, such as, Farmer's Union of Alberta, Western Stockgrowers Association, Fish and Game Associations, etc. Major changes are made by amendments to the Act, smaller ones by an order in council amending regulations.

Forestry Division

In the Forestry Division there is a Forest Surveys Branch which classifies

all lands in the green area from the standpoint of timber potential and the present amount of timber on the land. These inventories are made by the use of aerial photographs and ground inspections.

Recently the "timber quota system" was inaugurated by an amendments to The Forests Act. One of the main features of the quota system was that commencing with the year 1966, all permanent forest lands which were cut over must be reforested. The forest industry take the responsibility for reforestation for the areas in which they operate. Under the quota system, established licensees were issued quotas generally equal to their average annual production from 1960 to 1964. In addition, quotas were sold amounting to approximately 100 million board feet of production per year. Once an operator obtains a quota and a licence to cut he can be assured of a long term operation and, in effect, the timber will be maintained on a perpetual basis.

During the last few years, the forest or green areas of the province have been used for purposes other than forestry, namely for oil and mineral development and for recreational purposes. This has required increased emphasis on planning and management of our forested areas and has necessitated a fairly intensive control of the use of the lands in these areas.

Parks

Provincial Parks are established for the pleasure, recreation and general benefit of the inhabitants of the province and for the maintenance and production of native plant and animal life, and for projects of geological, ethnological, historical or other scientific interest. In order to carry out these objectives the Department has for several years been classifying lands and reserving those lands which were considered to have these types of recreation potential. This was done so that such lands would not be sold or disposed of to private individuals but retained for the general public.

Until recently there was no scientific classification of lands for recreational uses, however, in the last two years under the assistance of the ARDA program a more scientific approach has been taken for the classification of lands for recreational purposes. The Parks Division has a planning section which works out detailed plans for the most efficient use of each park according to the objectives in establishing each park.

Fish and Wildlife Division

In the Fish and Wildlife Division the Biologists are continually working on the problem of determining what we have and how we can improve what we have, and also how it can best be managed to give a maximum harvest of game and fish not only for today but for years to come.

Under the Fish and Wildlife Division reservations are also made for land areas which are considered as prime habitat for fish and game and also land areas required for access for the use and harvest of these resources. Recently the Fish and Wildlife Division has been investigating the possibilities of either buying or acquiring by easement small areas which are prime habitat for wild game production and also areas needed to protect stream banks and areas required for access into good fishing streams and lakes.

As mentioned before, in order to properly utilize our renewable resources efficiently and to the fullest extent, it

is necessary to bring in the principle of multiple use. The supply of land is static. The demand is increasing and this requires careful planning and a close co-operation between the different agencies administering the renewable resources. To properly utilize our renewable resources not only requires careful planning within the Department of Lands and Forests but between other departments as well. The biggest challenge that faces us today in the management of our renewable resources is the planning and co-ordination of the development and use of these resources into our economic and social system in such a way that they will be used most efficiently with the maximum returns present and future generations. Many conflicts will arise and solutions should be based on intelligent knowledgeable decisions. The general public taking an increasing interest in natural resource problems and policies and since the laws governing the use of our natural resources must be passed in the Legislature by Members of the Legislative Assembly, who represent the people, it is of utmost importance that we keep the public well informed of what we are proposing to do and why.

It is becoming more and more apparent to natural resource administrators that decisions cannot be based entirely on the physical aspects of the resource involved but must be closely correlated to human needs and requirements. This means that as more and more of the people wish to utilize land to meet their needs, whether it be for agricultural purposes, recreational or any other purpose, it will mean there will be less and less to go around and it is of utmost necessity that we use our resources wisely and that the public are well informed of the why's and wherefore's of our natural resource policies.

GOLOR...



MAN APES AND MONKEYS







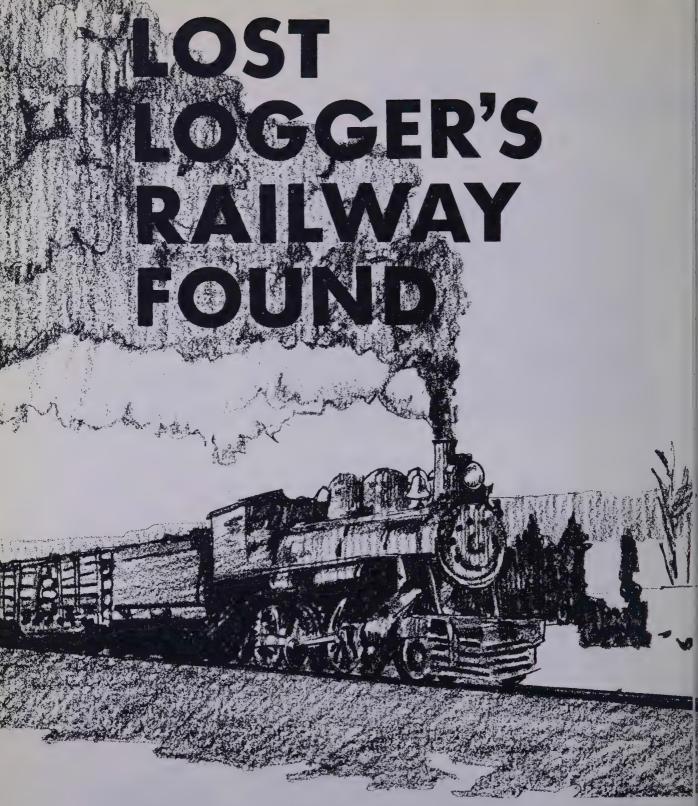


BEES Mosquitoes



WHAT IS SEEN





BY EDO NYLAND, FORESTER, ALBERTA FOREST SERVICE, EDMONTON

During the spring of 1968, I was checking timbered lands north of Mayer-thorpe, 75 miles northwest of Edmonton. Noticing piles of what looked like railroad ties stacked neatly beside an old grown-over trail, my first thought was that railway ties had been cut for sale and forgotten, but this was white spruce country and spruce is never used for ties. Tie imprints in the ground made

me realize this had once been a railroad. Then I remembered having been told that years ago some railroad logging had been done east of Whitecourt but where it had been, I didn't know.

After talking to local residents, it turned out that a number of the area's old time loggers were still alive and full of information. They all knew that the North West Lumber Company had been

the timber holder, that "J.D." was the owner. Also Shay Locomotives were used to haul the loads to Green Court from where the Canadian National Railway took them to Edmonton. When I asked who "J.D." was or where the logs had been sawn, only vague answers were received. Then Mrs. Ade, widow of camp foreman George Ade, who had lived with her husband in Camp Two for several years, was found and filled in the missing links. Her photographs and information, together with that of several other old timers, the Northern Alberta Railways and government papers, allowed me to put an almost forgotten part of our province's history together.

Timber Berth Number 1192 was advertised for sale on October 28th, 1904, well before the first settlers came to the area which later became known as Connor Creek. The timber limit was bought on December 7th, 1904, by Mr. Theo A. Burroughs, Member of Parliament for Winnipeg. Although this gentleman was urged from time to time by the federal government to start operations, no logging appears to have been done by him. In 1921, the Northwest Lumber Company acquired the timber rights and within a year action started. The owner of the company was Mr. J. D. McArthur.

"'J. D.', as he was commonly called, despite his lack of formal education, was one of a group of famous empire builders who came from Glengarry County, Ontario. He, along with the McMarties, MacDonnels, etc., made enviable reputations as men who could get things done. They contributed in no small way to the Canada of today. 'J.D.' was a big man, well over six feet tall and as his name implies, of highland ancestry. He had unlimited energy, a natural capacity for leadership and was anxious to see Alberta settled with land being brought into production."

McArthur was a railroad contractor, who finished a large section of the Trans-Continental Railway east of Winnipeg in 1907. He moved to Edmonton with a large crew of experienced railway workers to start construction in 1912, on the Edmonton-Dunvegan and British Columbia Railways, commonly called the E.D. & B.C. In 1913, Mc-



J. D. McARTHUR
Railroad Contractor and Owner of
North West Lumber Co.

Arthur acquired control of the Alberta and Great Waterways Railway. Construction had started earlier but suspended. Starting work from Carbondale in 1914, Lac La Biche was reached during July, 1916, and Draper in 1922.

In the meantime, McArthur started the North West Lumber Company and acquired timber licences by purchase from their owners. He built a railroad to one of these, starting at the village of Green Court, in 1922, plunging through a large swamp in a north easterly direction straight for the timber stands. The going was rough and considering the remnants of their labours, it must have been a titanic task. To build this railway the first three miles had to be laid through floating muskeg. Where there was no footing, balsam trees were laid side by side, rip-rap fashion, better known as corduroy. When this sank into the swamp under the weight of the train, more layers of trees were added. The one-mile stretch past the lake, where the steam engine

took on water, was to be constant work for the next ten years. When one or more cars derailed, three toots of the steam whistle would tell the railway gang back at camp that there was trouble in the swamp. Help would soon be on the way.

When the timber was reached, Camp One was built with Mr. Jack McNish as the camp foreman. The camp had only a few buildings, a repair shop for the engine and railroad cars plus bunkhouses for the men. After Camp One was finished in 1922, Camp Two was constructed. Logging started that same winter. The man in charge of all operations was Archie McGregor and he was known as the walking boss.

On rare occasions McArthur would arrive in his private railway car. This was a very elaborately built unit, finished in rosewood. The car at one time belonged to U.S. President McKinley.

Few of the workers were ever allowed in it and the car is talked about as a legend. Its appearance in the Green Court or the logging area was long after discussed as a news item. Because of the age of the car and its inability to keep up with the needs of modern railroading, the car was destroyed several years ago.

Trees were felled with crosscut saw and double bitted axe, cut into 12-16 foot lengths and loaded on sleighs drawn by four horses to be hauled to the rails. An A-frame called a 'jammer' was used to load the logs onto the flatcars.

The Shay steam locomotive was something special to see and hear. The wheels were driven by worm gears which geared down the steam engine's speed to give the wheels great power but only little forward motion. Hearing the engine, one would say that it was

RAILWAY BED SHOWING DITCH DUG IN 1922





KRAUSE'S BUSH CAMP

doing 80 miles per hour when actually it travelled only eight to ten miles per hour.

The rail bed was rough and steep in places, often slanting to one side or the other and when going through the large Green Court swamp, frequently under water. It was a constant battle to keep the steel in operating condition.

Over the next nine years, a total of 17½ miles of main line were built through the timber berth and many miles of side spurs were laid. These served only for a short time until the trees were removed.

Several small contractors were logging for the company; Kooley, Krause and Craig being some of them. They all had their own camps. The brothers, Frank and Julius Krause, worked together and built the first contractor's camp in 1923. (The son of Julius Krause is the present Superintendent of the Whitecourt Forest.) Living conditions were primitive. The buildings were made

of chinked logs. Bunks were made of rough lumber or thin poles and covered with straw which served as a mattress but the food was wholesome and good. A large wood stove would stand in the middle of the cabin which the "bull cook" was supposed to light in the morning.

"Bull Cook" is a term left over from earlier logging days when bulls were used instead of horses to skid trees out of the bush. The man who looked after the feeding of the bulls was the bull cook. With the disappearance of the bulls from the logging show, the bull cook was kept on to chop firewood, sweep the floors, supply the cabins with water for the workers and have the stoves burning when they came home after a day's work.

Wages were low compared to today's pay. A labourer would earn \$26.00 per month while a four-horse teamster picked up \$45.00. Meals were "expensive", the average cost to the company was 13 cents per person.

Entertainment was free. There always appeared to be a number of talented people located in the camps. Many sing-songs were held to the accompaniment of banjos and guitars. Home-made shows featured stepdancers and vocalists. Even dances were held, especially in Camp Two where there were at least a few women. These women were not enough so more ladies were "created" by tying hankies to the sleeves of some slighter built men, identifying them as females. This was all endured in good fun.

As the years went by, the camps became larger until in the winter of 1928-29 when a total of 700 men worked in the camps. Some only stayed a few days but most finished off the winter. The steady workers were usually the homesteaders from nearby communities of Connor Creek, Peavine, Moose Wallow, Green Court, Mayerthorpe and Blue Ridge.

Several of the men are still alive and

active. Mr. George Millburn, the jammer operator, is now 82 and still swings an axe and runs his farm just north of Green Court.

The spring of 1928 was extremely dry and windy. Sparks thrown by the Shay locomotive had already started several small fires in May along the mainline. Luckily the fires had been quickly extinguished. Then one fire started near Camp Three which strong winds blew out of control into a full scale forest fire. All available men of the other camps joined Bill Gorman's crew in the fight, but they could not keep the fire from the one mile of track near the camp. Considerable equipment and nearly five and one-half million board feet of decked spruce logs were destroyed.

This fire, however, was not the only one to do damage. To the north, close to the Athabasca River, the Chisholm Logging Company had a large fire in their timber berth. It is reported that

The brand new "SHAY" photographed in the Dunvegan Yard just before it left for the logging area, 1927





Pulling loaded cars to Green Court, 1927

this company was reluctant to fight this fire because the best and easiest accessible timber had already been taken and what was now burning had been expensive to haul to the river. Therefore, little action was taken and valuable timber stands of white spruce went up in smoke.

After this bad fire, only one more camp was started, that of D. Gooley's. Logging went on at a fast pace. The locomotive was kept busy ferrying the loaded flatcars to Green Court, usually no more than six cars at a time. Every day a train of 23 or 24 loaded cars would leave Green Court for Edmonton, taking the logs to the large mill at the Dunvegan yard of the E.D. & B.C. Railroad near St. Albert. The same location is where the Nelson Lumber Company is now located. Two or three loads of logs

WALTER BLACKSTAFFE and GEORGE ADE in Camp 2, 1928





GEORGE MILLHURN, the Jammer Operator, loading a sleigh, 1928

would be rolled into the pond behind the mill to be eased onto the jack ladder, an endless chain with hooks, which would take the logs to the head saw. It not only handled logs from the Green Court areas but also from many other berths in the Athabasca, Pembina and Canyon Creek areas. Logs cut along the Athabasca were floated to Chisholm where a large boom strung across the river would force the logs into a backwater. Then the logs were loaded onto railway cars for shipment to the North West Mill. The lumber produced at this mill went mainly into building construction in Edmonton between 1922 and 1933.

Back in the timber, the last valuable stands were attacked. McArthur purchased a crawler tractor in 1929 to try to improve the skidding and hauling of logs. This may have been the first time in Alberta that a crawler tractor was used for logging. The operation of this machine apparently was a problem. On one of the first days that it was used, George Ade got his foot caught in the

clevis and skinned his toes to the bone. Problems with running in winter conditions plus the difficulty of repairs put an end to this worthwhile effort.

Old Doctor Walachow of Mayerthorpe was kept busy treating the loggers, especially the men handling horses. It was a long, rough ride for an injured worker; but if necessary, the trip could be made on the rails in an hour and a half. Most injuries resulted from horse kicks and axe cuts; occasionally a foot was broken when a log skidded over it. As far as is known, no one was killed.

After the 1931-32 winter, the timber berth was abandoned. Not all timber had been removed; in fact, several million board feet in smaller diameter trees were still standing together with the unlogged portions of the berth. In total, close to 335 million board feet had been removed to Edmonton in eleven years of operation. The rails were taken up during the summer of 1932 and all equipment removed.

The subsequent years saw enormous fires destroy what was left of the timber and camps. What had once been beautiful forested land was now reduced to charcoal. The topsoil burned off and repeated burns destroyed the fertility of the soil. The area became one large barren plain dotted with charred stumps.

Homesteaders came in to farm the land which could not produce agricultural crops. Rocky soil prevented farm machinery from operating properly. Back-breaking labor was put to clearing the land of stumps and stacking the debris. In the long run, most left and the majority of the land reverted back to the Crown due to non-payment of taxes. Today only one bachelor is left. He lives in an old shack on the site of Camp Two. When the old camp burnt, only metal debris was left. Ray Smith found the large kitchen range and fixed it up so it could be used again. Since it was too big to put in a shack, he built

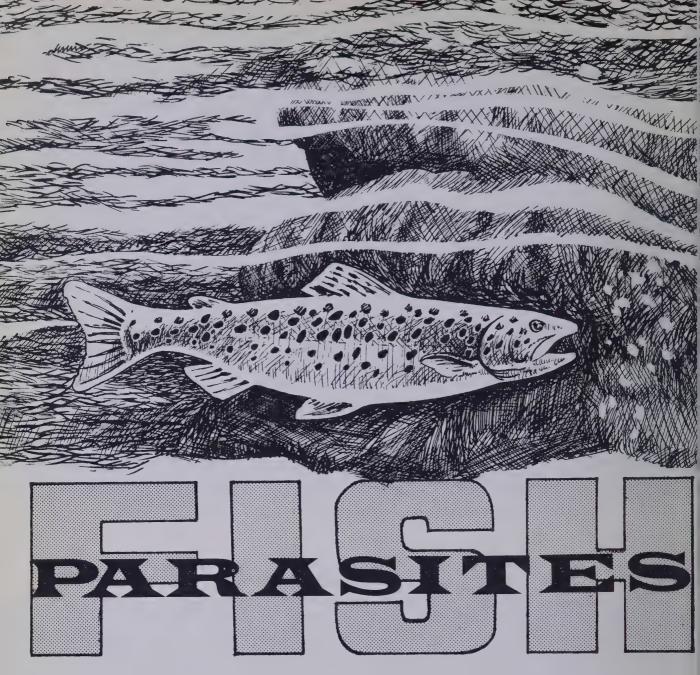
a hut around it and lived cosily for several years until the stove was beyond repair.

The large mill on the St. Albert Trail also burned in a spectacular fire, probably in 1932. What was left after the fire was burned machine parts and junk. This was all pushed into the log pond and filled up with dirt. Only last year, the Nelson Lumber Company accidentally found the old pond again when the footings for a new warehouse were being put in. The workers found flywheels, scrap metal, concrete slabs and blocks embedded in the mud.

This was the end of the once-great North West Lumber Company. Their still active timber berths were finished by other companies. Apparently, J. D. McArthur died by this time and "the spark" left the company. In fact, this whole history is McArthur's because without his drive and knowledge of railroad construction, this unusual operation would never have been.

Log decks along the tracks. Jammer in position to do stacking of logs ready for shipment by rail, 1928





BY MICHAEL R. ROBERTSON, FISHERY BIOLOGIST

One of the basic things which most animals have in common is that they harbour some type of parasite. In fact, parasites themselves may also carry parasites.

When compared with fish from other areas of the world the fish in Alberta appear relatively parasite free. The fact must be faced, however, that many of our fish can harbour several varieties of parasites. Most fishermen have probably encountered one or more of these, depending upon the variety of fish which they have caught and the lake or stream from which they took them. The majority of anglers are not disturbed by the

sight of a worm dangling from a hook. However, the sight of a worm moving in the stomach or flesh of a freshly caught trout will sometimes cause a disconcerting reaction, which usually results in a letter or phone call to the nearest Fish and Wildlife office.

The most commonly asked question concerns the possibility of danger from consuming fish which are harbouring parasites. Cooking of fish will kill any parasite, larva or cyst, which may occur on or in the fish. Freezing, pickling or even smoking of fish will not guarantee its safety for human consumption. Cooking any fish properly, until the flesh is firm and milky-white, rather

than clear, will ensure its safety for human consumption.

Parasites encountered in Alberta fish are extremely varied and represent many of the branches of the animal kingdom. The abnormalities reported by anglers may be caused by bacteria, by shrimp-like organisms, by the more familiar tapeworm or even fungi. They may be present on any part of the body from the eye to the gills, skin or flesh. It is unlikely that a fish taken by an angler will harbour more than one of these parasites. It can be safely said that many of our fish do not contain parasites at all.

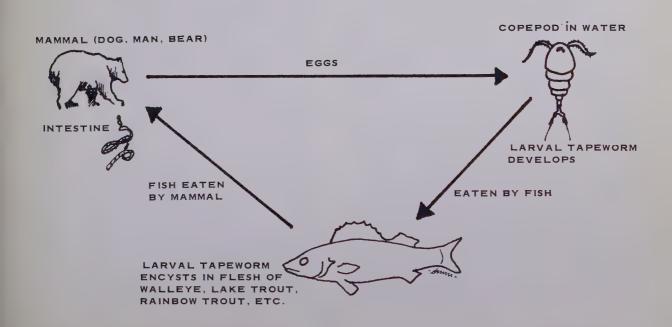
There is one parasite which should be used for illustrative and descriptive purposes since it is the only one known which man (among other mammals) can be infected with as a result of eating certain fish. This is the Broad Tapeworm (Dibothriocephalus sp.), which is common in some of the more northerly areas generally in walleye (pickerel) where the presence of the larvae in fish is maintained by the nearness of sled dogs, bear and human populations. The mentioned mammals serve as hosts for the adult tapeworm.

Life cycle of this parasite is illustrated in Figure 1. The host for the adult tapeworm, which lives in the small intestines of man, and in dogs and bears, infects natural waters by the passage of eggs produced by the tapeworm. These eggs hatch into tiny, free-swimming larvae which are eaten by a copepod, a tiny shrimp-like animal. Copepod is one of the myriads of small animals making up the plankton of our waters. This larva changes its form while in the copepod. If the copepod is then eaten by a fish, the larva inside it is not digested. It is resistant to the digestive processes of the fish and in turn set free in the fish's stomach. It then migrates through the stomach wall and grows into a larger, ½- to 2-inch white larva in other organs or in flesh of the fish. If this fish is then eaten by a bear, dogs or humans, a cyst may develop into an adult tapeworm, thus completing the life cycle. The Broad Tapeworm is the only parasite found in fish of Alberta (compared to two found in big game) which can infect man. Proper cooking of fish eliminates this possibility.

Apart from this one parasite, there are many others which the angler may

FIG. 1—The life history of the Broad Tapeworm. This is the only fish parasite in Alberta which is infectious to humans.

BROAD TAPEWORM (DIBOTHRIOCEPHALUS sp)



encounter during his associations with our Alberta fish. Some appear in the form of a large number of black spots in the skin (Figure 2). Others may appear as tiny lice on the gills or fins, large white fungus-like growths or ulcered sores on the fish's sides. These are all quite common and except for aesthetic considerations should not be of concern to the angler nor affect his use of the fish.

There are several factors affecting the numbers and types of parasites encountered in fish:

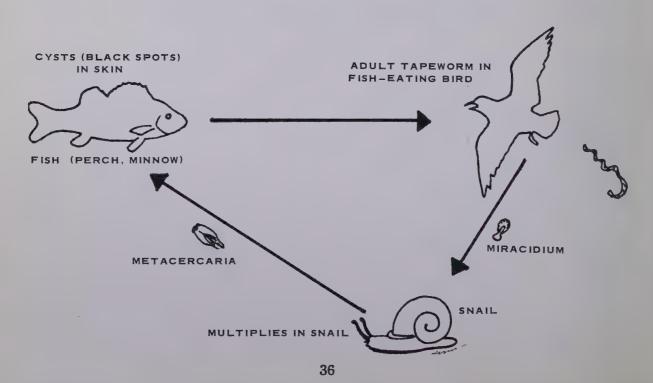
- 1. The size of the fish population—
 the more dense the population, the
 greater the changes of parasitic infestation. Populations of Yellow
 Perch which are stunted due to overcrowding, for example, often have
 heavy parasite infestations.
- 2. Age the older the fish, the longer it has been exposed to parasites (there are however a few exceptions to this rule). Also, a young fish may eat different food from older fish and thus be exposed to different parasites.

3. Habitat — fish living in streams may harbour different parasites from fish living in lakes.

The effect of parasites on fish may also vary. Many parasites have very little obvious effect on the fish which serve as their hosts. However, it pays certain parasites to affect the host in a particular way, thus increasing the chance that this fish will be eaten by some animal which forms the next stage in the parasite's life-cycle. For example, the large body-cavity tapeworm larva (Ligula intestinalis) is often seen in Spot-tail Shiners and Yellow Perch. Most anglers are familiar with this tapeworm in shiners from experiences in earlier years when these fish were permitted as bait. People often remarked at the fact that this larva made up half of the total weight of the minnow. This, inturn, caused the fish to swim sluggishly or differently from others in the school. Consequently, the infected fish is more susceptible to predation. It is no coincidence, therefore, that the adult of this tapeworm lives in the intestine of fish-eating birds like gulls, terns or mergansers.

FIG. 2 — The life history of "Black-Spot", a parasite common to Alberta Perch and Minnows.

BLACK SPOT (NEASCUS spp)



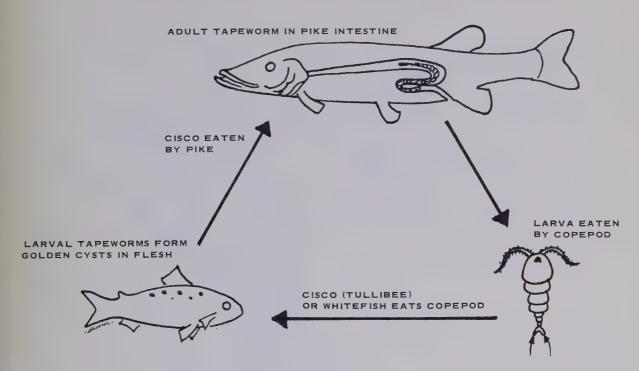


FIG. 3 — The life history of the Pike-Whitefish Tapeworm. This parasite, although harmless to man, can affect Alberta's commercial fish exports.

Fish growth rates may be affected by heavy infestations of parasites and while usually not contributing directly to fish mortality, the reduced efficiency of certain of a fish's natural functions could cause fish to perish if they also suffer other environmental stresses. In Lac La Biche, for example, during the summer of 1965, the ciscoes (a small member of the whitefish family) were heavily parasitized by a tiny shrimp-like copepod (Ergasilus sp.) which attached itself to the fish's gills. In many fish, several hundred such parasites occurred on each gill. This alone was not enough to kill the fish. However, during that summer, an extended period of very calm, hot weather produced heavy blooms of algae and markedly reduced the dissolved oxygen in the water. Normally, these fish could have survived but due to the heavy infestation of this gill parasite the ciscoes' ability to resist low oxygen concentrations was reduced and large numbers of them died.

An example of a parasite which affects the market value of a commercially harvested fish is the pike-whitefish tapeworm, *Triaenophorus* spp. The adult lives in the intestine of a pike and the last larval stage takes the form of a golden cyst in the flesh of Lake Whitefish (Figure 3). All stages of this parasite are completely harmless to humans. Whitefish containing more than a certain number of these cysts are not permitted for export into the United States. Here, the purely aesthetic effect of a fish parasite affects its market quality.

Parasites of fish are not as well known as perhaps they should be. Their life histories may be very simple or extremely complicated. From the point of view of treating fish for parasites, this is usually only feasible in a fish hatchery. Treatment of even our smaller lakes is financially and practically impossible. Consequently, if anglers wish to continue to enjoy their wonderful Alberta sport-fishing they must accept the presence of these "quiet" organisms.



BY W. T. GALLIVER, ADMINISTRATIVE OFFICER, PROVINCIAL PARKS

"John Ware, ex-slave from the South and for 25 years a rancher and cowhand in the West, owner of a thousand head of the finest range cattle on the Red Deer River, was killed today by a horse stumbling and falling on him, killing him instantly. Deceased was 60 years old and leaves a family."

Thus the Calgary Daily Herald of September 12, 1905, carried news from "Brooks, Alberta," informing a saddened frontier of the passing of a familiar personality. Feelingly, the pioneers whispered, "John is dead! He was a great soul." Even 50 years later, when men of the Old Range gathered at Calgary's Palliser Hotel for the Annual Rangemen's Dinner, one of the patriarchs proclaimed softly: "John Ware! Bless his Negro heart. He was the finest gentleman I ever knew."

The above quotation from the book "John Ware's Cow Country" by Grant MacEwan, expressed the feeling of many

of the ranchers, associates and friends of John Ware, who left an indelible mark in the pioneer history of Alberta.

To begin the story of this early rancher and horseman we will have to return to a large cotton plantation near Georgetown, South Carolina, and the year 1845.

John Ware's birth on the South Carolina cotton plantation was an event of small consequence, except to keep his mother away from cotton work for a few days. He was just one more curly-haired "pickaninny" in a community where people were restrained in everything except propogation.

During his early years on the plantation as a slave, John Ware developed into a handsome physical specimen and had a deep feeling of fair play and was adverse to the bullying tactics employed by the plantation owner. Because of his independent spirit, John Ware on more than one occasion became victim to the

anger vented upon him by the plantation owner.

John Ware was 20 years old at the end of the United States civil war when Abraham Lincoln's emancipation order to free all slaves in the United States became law.

As a free man, John Ware moved from South Carolina westward to Texas, where he obtained his first full time job on a ranch near Fort Worth. It was during his employment on the Murphy ranch that John was most happy and he discovered a fondness for horses which for the first time in his life gave him a purpose worth pursuing. He wanted to be able to ride and rope like his employer, and to this end John Ware practised his roping and when he decided he was expert enough with throwing the lariat he requested his boss to permit him to try riding one of his horses.

Permission was granted and although he was warned he could get hurt he was given a half-broken horse for his first attempt at riding.

The colt was bridled but not saddled when John leaped on — almost as a cat would pounce on a mouse - and the half-broken horse's inclination was to buck or run. It did both - bucked first, then dashed toward the logs forming the corral fence, bounded into space like a deer taking a deadfall, cleared the wall and galloped out across the plain. And John, miraculously, was still riding, still clutching the animal's mane and pressing his untrained heels irritatingly against the pony's sensitive rear flanks. The Murphys, completely unable to intervene, watched with astonishment. They expected to witness mishap probably a mangled human body. For Old Murph, fear mingled with surprise and admiration — fear for safety of a boy he was growing to like, surprise that John had not fallen, and admiration for the little bay gelding showing almost unbelievable speed.

Horse and rider, still streaking away in the general direction of Mexico, dropped from sight as they entered a dry ravine, came back into view on the other side and, finally, disappeared in the belt of trees near the river. As the young horse grew tired and John was able to collect his thoughts, he became conscious of the loose rawhide reins he was holding and discovered a use for them. With his pull on the right leather the bay yielded, circled in that direction, and continued to run at only a slightly slackened pace in the direction of the corral so recently left in mad flight.

For John there was the sensation of triumph. Fear departed. He was still on the horse and now, with a rein held firmly in each hand, he was in control.

Half way back to the corral he met Young Murph on a grey gelding, anxiously on his way to rescue or find the terrified young Negro by making his first ride.

"Are you all right?" Young Murph asked while scanning the panting colt to make sure there was no outward injury.

With a broad grin betraying the satisfaction of mastery, John replied, "Ah'm fine, Boss, but ah was afearin ah'd neva see yo again. We seemed to be leavin Texas in a big hurry."

"Don't know how you managed to stay on when you jumped that fence. It's a four-foot fence. Holy Jerusalem, that thing can jump — and run. Do yo want me to lead him back for you?"

"Ah'll ride him Boss. Ah knows how to do it now. Ah found how to make a hoss turn."

Returning to the corral the two riders were met by Old Murph, on foot, excited and shouting. "Gosha' mighty, man, can that thing go! Why, there ain't a nag in Texas to catch him. Wonder you didn't kill yourself though, John. Nobody hurt, I guess. Say, that colt's going like a broke horse now. That's one horse that's not for sale. No sir! If he can run that fast, he can trot too. We've got to get harness on that fellow. I'll train him myself. What're we going to call him? John, got any ideas?"

John was standing beside the gelding, rubbing foamy sweat from the animal's steaming hide. "Call 'im Jack Rabbit or Hound Dog," John replied, half in fun.

"All right. He's Hound Dog."

John Ware's next experience was to ride in a saddle and in the days to follow he was on a horse whenever there was opportunity, sometimes working young horses, sometimes riding with Young Murph.

In 1879, John received his first chance to ride with the big trail herd going from Texas through to the new ranges in Montana. A toal of 12 cowboys including John and a foreman, horse-wrangler and cook, together with some 80 horses set out for delivery to Montana of 2,400 uncooperative, bawling, ill tempered Texas cows largely horns, legs and tails.

After four months and nearly 2,000 miles of trail travel, the trail-weary Texas cattle were delivered to their Montana owner in the Judith Basin and branded. The cowboys were paid off and separated, some would return to the Rio Grande; some would seek fortunes in the gold diggings farther west and one announced his intention of "taking a look at the grass up in Canada when we're so close to it".

"Close to it?" John asked. "Where is Canada from here?" He had no reason for more than casual interest. He intended to return to Texas and Blandons, but Bill Moodie, his riding mate on the drag end of the trail herd, wanted to go on toward the Rocky Mountains and Virginia City made famous by a gold rush. John agreed to go too.

"Won't be many cattle back there," Bill allowed, "but I figure we can look after ourselves and, who knows, we might hit gold."

John Ware tried his hand at digging for Montana gold — which proved unrewarding and after trying his hand at hunting in the mountains decided to locate his old side kick Bill Moodie to return to Fort Worth.

It was early in 1882 when John found his old friend, back in the saddle and doing well as an Idaho cowhand. The white man had a warm welcome for his former riding partner and was ready to consider the proposition, to go back over the long trail. But at this point a long, lean, Canadian cattleman, all bone and muscle like a Texas steer,

intervened and completely changed the shape of destiny for John Ware and for Canadian ranching. He was Tom Lynch, stockman extraordinary, who wore out his saddles faster than his boots.

Things were stirring in the North, where Canadian grass was attracting attention. The buffalo, whose millions had been so recently destroyed, had fancied the northern grazing as much as any other, and there was no reason to suppose that ranching opportunities ended at the international boundary.

Tom Lynch was in Montana to assemble a crew of dependable cowboys who understood the way of cattle and horses to drive a total of 3,000 head from Montana into Canada.

"Hire John Ware?" Lynch was cold to that idea. He needed especially good and able men for this expedition through mountains and remote regions known for their rustler bands. He couldn't afford to experiment with greenhorns and apprentices. Negroes, Lynch knew, had never distinguished themselves as horsemen and cowboys and, besides, this man Ware of whom Moodie was talking was on foot; perhaps he couldn't even saddle a horse, let alone ride one. The fact was that he didn't want Ware but these were Moodie's terms: "take both of us or neither", and Lynch wanted Moodie.

"All right," Lynch replied, annoyed to be capitulating to such a demand, "We'll take your little colored friend too. He'll probably eat more than he's worth but, damn it, we'll take him. Can he hang on a horse?"

John Ware was given a dilapidated saddle with rope for a stirrup, a debilitated horse, and informed of his job, that of night herding. It was the assignment nobody else wanted — sitting alone and singing through the long eerie hours of darkness, but John hid his disappointment with a smile and said, "Them cows'll know all ma songs by the time we get t' Canada." But notwithstanding the despised task of keeping the sleepy herd company at night, John was glad to be earning "a dollar a day and grub"; once again glad to be working close to Bill Moodie.

The route lay eastward along an old trail crossing Idaho from Oregon and



Mrs. Ware, Robert, Nettie and John Ware

then northward on the Madison-Gallatin Trail leading through rugged country, over the Monida Pass and into the State of Montana. But Tom Lynch — at home anywhere west of Chicago and Winnipeg — knew exactly where he was going. He had been over this route before when, as a youth, he had helped to drive cattle from Oregon to the mines in Western Montana.

Weeks after departure, as the herd was resting between Virginia City and Helena, John mustered courage to make a request he had wanted to make ever since the trip began. "Boss," he said shyly, "ah was just awunderin if you'd give me a little betta saddle an a little wuss hoss, cause ah thinks ah can ride um, maybe."

Cowboys hearing the suggestion chuckled and thought they recognized an opportunity for some entertainment. They felt the need for something to break the monotony of the constant company with the longhorns. There was a single horse in the group which had taken the conceit out of more than one seasoned cowboy. If the night herder wanted a "wuss hoss", he might as well have one that would furnish some amusement. What John was given was this outlaw broncho, and all hands in-

cluding the cook were present to see if the fellow from the night herd would bounce when he hit the ground. Nobody except Moodie had any idea of what John might be capable of doing and he said nothing.

With John seated insecurely in the saddle, the wicked horse was released. The white around its eyes disclosed its evil temper and with ears back and mouth wide open it leaped instantly to be rid of this human parasite; kicked, pitched, sunfished and did unnamed contortions in the air. As the horse groaned in its violent heaves, the rider gave forth some fiendish yells as though terribly worried. But he was not unseated and was not really worried.

Gradually the outlaw horse was giving up its fight, and members of the little audience standing beside a prairie water-hole — old hands with horses — looked on with silent awe. Cowboys, forgetting their plot to create some fun at John Ware's expense, knew they were seeing an exhibition of rough-riding such as to fill every one of them with admiration and, indeed, envy.

At the end of the ride, as the oncefamous bucking horse stood in subdued quiet, and surprised cowboys struggled to find words of praise, the smiling night-herder dismounted, saying apathetically, "Thanks Boss. Ah" keep this hoss—if it's awl right with you."

"Keep that horse? You can sure keep him," the foreman was saying. "Nobody else ever wanted him. If you can make a working horse out of him, he's sure your pony, John. That was a great ride. You've been fooling us, eh!"

From the moment of that notable demonstration, John Ware commanded a new measure of respect. One of the cowboys quit at Helena and John was promoted from night herding to day crew. His new position was near the point of the herd, and never again on that drive was he asked to take a night shift. Never again was there any doubt about his skill as a horseman.

Early in September the herd crossed the border and continued on Canadian soil. "Just a little more than a hundred miles to go now," the foreman announced. "We'll be there in 10 days."

Indian summer dignified the countryside as Tom Lynch and his men continued their course on or close to the Macleod Trail, that lifeline linking Fort Macleod to Fort Calgary. The mountains with fresh snow on their peaks stood out like polished monuments. Deer and antelope were numerous and screaming hawks glided overhead, but the hand of man was not much in evidence. The dozen cattlemen and their cattle seemed to have the trail to themselves, except here and there. At the Leavings of Willow Creek a stage coach drawn by four horses and directed by a joyful driver waving a bottle, circled widely to escape the herd. A little farther along, an I. G. Baker bull-train returning from Fort Calgary held rigidly to the trail and temporarily split the immigrant herd. A few curious Blackfoot Indians came to watch in silence as the cattle went by, but neither barbed wire, cultivated land nor human habitation more permanent than a teepee was seen between Willow Creek and the Crossing at Highwood.

As though knowing they were nearing their destination, the cattle quick-

ened their pace to 15 miles a day, forded the Highwood River without urging, and settled down for the night of September 25, 1882, at their destination.

John Ware was captivated by the frontier spirit, and was convinced that the country would give a fellow like himself a fair chance to be a man. He accepted the offer of \$25.00 per month to stay and work in Canada for Tom Lynch.

John Ware worked on the ranges on roundup and drives in the country between Highwood River and Old Man River. It was during one of his visits to Calgary John Ware had made up his mind to obtain a homestead quarter section and before leaving Calgary made official entry for the homestead quarter section. However, John Ware never completed the partially finished cabin that he had erected on his homestead.

During the time of the Riel Rebellion John Ware was recruited for the Stimson Rangers on a type of home guard duty and while on his patrol during this period, showed a definite firmness in dealing with the wayward Indians.



John Ware cabin now located in Dinosaur Provincial Park

One day while Fred Ings and John were on a combined range and patrol ride they encountered a camp of Sarcees beside the Highwood, close to where cattle were grazing. With the air of a field marshal, John commanded the occupants to move. There was no response, but the man's face revealed his determination. Though the Indians were nursing hostility, John rode boldly to the centre of the camp, roped the poles of the biggest teepee and pulled everything to the ground. When there was still no willingness to move, he seized a stout branch from a green poplar and proceeded to chase the Indians away. There were guns on both sides but, happily, they were not drawn.

The Sarcees couldn't understand John Ware. They were fascinated—almost hypnotized—by his courage and physical prowess, but he filled them with fear at times. The possibility of this distinctive fellow having some kinship with the spirit world was not overlooked. The wise men of the tribe rejected such a theory but were unable to offer an explanation for his colour. To the tribesmen, any person who wasn't an Indian was a "white man". Understandably, John Ware became known to them as Matoxy Sex Apee Quin, meaning "bad black white man".

During the roundup of 1885 John Ware visited the office of C. E. D. Wood, the Recorder of Brands, and on May 25 announced that he wanted to register a mark for his own cattle.

"What brand do you want?" was Wood's next question. John answered, "Ah figures 8 is ma good number. Ah've got enough money saved t' buy nine cows."

"All right," Wood replied, "I can give you the 9 brand. Want a single 9?"

"No, ah'd lak t' have quite a few. Would you give me about four 9s?"

"You'll need big cattle to carry that many. But sure, there's no reason why you can't have them."

And so, Brand Recorder Wood, the man who was mainly responsible for starting the Macleod Gazette three years before, inscribed a new entry in his big book: "9999 on left rib registered to John Ware, May 25, 1885.

Before those June operations were completed, John Ware bought nine young cow mavericks and paid about \$300 from his savings to the round-up association which was trying desperately to establish its right to sell unbranded cattle to pay general expenses.

But regardless of the association's entitlement to the proceeds from unclaimed cattle, the colored cowboy now had cattle of his own buying, even though the number was small, and he had more friends than ever. More and more people were looking at this former slave with a special sort of admiration and respect. That fact was made very clear by an item appearing in the Macleod Gazette on June 23, 1885: "If there is a man on the round-up who keeps up the spirit of the boys more than another and who provides more amusement to break the monotony, this man is John Ware. John is not only one of the best natured and most obliging fellows in the country, but he is one of the shrewdest cow men . . . The horse is not running on the prairie which John cannot ride, sitting with his face either to the head or tail, and even if the animal chooses to stand on its head or lie on its back, John always appears on top when the horse gets up, and smiles as if he enjoyed it - and he probably does."

It was in 1885 that John Ware went to work for the Quorn Ranches owned by Irishman John J. Barter. Behind the Quorn enterprise was a syndicate of fox hunting English capitalists and the ranch name was adopted from the Quorn Hunt Club in Leicestershire. Under such circumstances, nobody could expect ranch plans to be strictly commonplace. Cattle were to have a part in ranch operations, but company directors with romantic dreams about horses, planned to specialize in remounts — one or two crosses of thoroughbred on native mares — for British cavalry.

There was no shortage of capital, it seemed, and ranch buildings then under construction on the south side of Sheep Creek and eight miles west of Stoney Crossing—later Okotoks—were well constructed and elaborate for that time and place.

There were many old country visitors to the Quorn Ranch and mounted on the fine thoroughbred horses being bred at the ranch the English aristrocrat often partook at riding to fox and hounds with the fox being substituted for by the wily prairie wolf, the coyote. Through John Ware's gentleness and love of horses and his superb horsemanship in the field he endeared himself to many of the visitors to the Quorn Ranch and in particular to one "Lord Harold". Prior to Lord Harold's departure for England John Ware was made a guest for dinner with the young Englishmen at their special table in the ranch house. The Englishmen all were dressed in their formal clothes and John came in the only clothes he owned but he admired the dress suits and pressed his rough fingers on the cloth to judge its fine texture. With unhidden admiration and some pardonable covetousness, he tried to put on Lord Harold's Prince Albert coat.

The garment was much too small for him but Lord Harold sensing John Ware's thoughts promised him one of the coats would be sent to him when he returned to London. The Prince Albert coat promised by Lord Harold was duly delivered by an incoming guest in the months that followed. Lord Harold had not forgotten and John Ware was now the proud possessor of the most luxurious dress suit in the Northwest Territories — tails and all.

The Prince Albert coat was almost a trade mark of this cowboy and several of the photographs taken of him showed him wearing his elegant coat.

In 1888, during one of the exploratory trips to locate additional grazing spots in the Sheep Creek area John Ware discovered an oily scum in a pool of water, close to Sheep Creek, in a broad valley later known as Turner. John Ware took a sample of the oily substance which he later had analyzed and the report stated that it was probably seepage from a nearby vein of coal. However, John Ware figured that it might be oil and that maybe they would find oil in the valley someday. His companion on the trip agreed that it could be oil seepage and added, "Sure,

somebody who knows how to do it will come along someday and strike the oil that seepage is coming from—and make a million dollars. They'll never know it was you who discovered it either, John Ware."

It was during 1890 that John Ware fixed his homestead location in the country higher on the Sheep Creek.

Among the settlers coming to the West from Eastern Canada was Negro Dan V. Lewis with a family including an attractive daughter of marriageable age. The Lewis family, from Toronto, had taken a homestead two miles south of Shepard. News of the arrival of the Lewis family to the area was related to John Ware by his companion, John Barter.

After the spring round-up in 1891, John drove all the 9999 brand cattle to the higher ranges, away west of the Quorn, and took up bachelor residence in an unfinished log house beside Sheep Creek. Surveying the rough log structure set on stones and still unchinked, he proclaimed from his heart: "Ain't it beautiful! Ah nevah thought ah'd see a house as putry as that'n. An its ah ma own."

During this year John Ware was introduced to the Lewis family by J. J. Barter and was instantly smitten by the comely beauty of their 19-year-old daughter. John courted Mildred Lewis during the year and culminated in their engagement during the Christmas season.

On leap year day Rev. George Cross, B.A., Minister in charge of Calgary's new Baptist Church, performed the marriage ceremony and signed the certificate, recording the fact that "Mr. John Ware of Sheep Creek and Miss Mildred J. Lewis of Calgary, were by me united in Holy Matrimony, according to the ordinances of God and the Laws of the Dominion of Canada, at Calgary on the 29th day of February, 1892."

The newlyweds bought some groceries, dishes, bedsheets and towels at a store and drove away over winter roads and into a new world of romance, with more happiness in their hearts than either had ever known.

It was a long trip over snow-covered trails and should have been both chilling and tiring. At the Quorn Ranch the honeymooners stopped for supper. J. J. Barten extended a welcome, thinking of the day on which he planned the meeting of John and Mildred. With unrestrained pride the groom introduced his bride to the others at the ranch house.

After more hours of travel through that moon-lit winter night, they were at their own log house, warm because John Quirk had been there to make a fire.

The very next evening, the Negro Wares had company — the Irish Quirks, the American Sam Howe, the Mexican Ferdinos, and the half-breed Fidlers arrived over the snow to extend a foothills welcome to the newlyweds. The women in the party brought buckets of sandwiches, expressing the genuineness of rangeland neighborliness.

Nobody on that frontier talked about Brotherhood, but everybody practised it and graced such practise with the dignity of sincerity. Mildred thanked her new friends — Irish, American, Mexican and Indian and urged them to come again, saying, "I'm going to love it here."

John Ware became the proud father of a baby girl on March 9, 1893. The little baby was named Amanda Janet Ware, but was to become widely known as Nettie Ware. A son was born to the Ware family on November 29, 1894.

After losing two of their homes the Ware family finally settled five or six miles back from the Red Deer River where they had chosen a spot near a small stream later known as Wares Creek.

It was during 1905 that range ranching as it had previously been known came to an end with the influx of homestead entries in Alberta when barbed wire was becoming as much a part of standard ranch equipment as stock saddles. The Canadian Pacific Railway was about to irrigate a great tract of land east of Calgary, and all together, the West was emerging with a new face.

Nor were the changes all good. Unfortunately, only a few people were thinking about the evils of poor land-



Mrs. Mildred Ware with Robert, Janet and John Ware

use. John Ware had been one of them. "The way they ah plowing up this good g'ass," he had observed, "they must think it ain't wo'th much — shoulda left mo' of it the way God planted it. You know, yo can't plant that kinda g'ass back aftah yo find the land won't do any good fo' wheat."

Tragedy struck the Ware family, Mother Ware became quite sick. There being no doctor within calling distance, John nursed her as well as possible, then insisted she go to a hospital in Calgary. Grandmother Lewis came from Blairmore to care for the five children, Nettie, Robert, William, Mildred and Arthur.

Early on an April morning the Ware family were advised that Mother Ware had died of typhoid and pneumonia at the Holy Cross Hospital in Calgary. Sadness settled over the home and over the community along the Red Deer, where Mildred Ware was known as a good cook, a good mother and a good neighbor.

The grandmother took the five children back to Blairmore, and John invited a colored friend, Pete Smith, to stay with him and do the cooking. But John was lonely; and shortly before his tragic accident, his son Bob, then 10 years old, returned to the ranch.

It was September 12th and a herd of

fat steers was being held near home in anticipation of a visit from a Pat Burns buyer. Mosquitoes made the animals restless; and John, mounted on his grey mare, Flaxie, was turning any cattle showing an interest in heading toward Tilley and Twelve Mile Coulee.

a "Yo' go on home fo' suppah," John instructed son Bob, who had been riding close to his father. "Ah'll stay heah a while and hold these cows till they settle down."

At that instant as he turned the grey mare, she put a foot in a badger hole and fell awkwardly, with the rider underneath.

The lad saw the mishap and hastened to his father's side. The mare got up and walked away; but the man was lying on the ground, motionless. Bob tried to rouse his father but there was no response. Terrified, he galloped home, told Pete Smith that help was needed, and then continued on to tell the Eides on the KP Ranch.

Pete and John Eide lost no time. They hitched a team to the family democrat, forded the river and drove to where the accident had occurred. The Eides knew little or nothing about medicine or human physiology, but it was perfectly obvious that John Ware was dead. Shocked and saddened to the point of tears, they placed the body on the buckboard and hauled it home. Next day they transported it over the long trail to Brooks.

The funeral of John Ware was held at the Baptist Church on September 14, 1905, and it was the biggest scene in Calgary up to that time. Notwithstanding the primitive state of communications, the sad news reached the foothills and prairie communities; and hours before the service, wagons, buggies, democrats and saddle horses were converging upon the city, bearing men and women in whose hearts pride in knowing John Ware now mingled with sadness.

George Land, E. D. Adams, Charlie Douglas, Pete Eide and Joe Shannon were pallbearers, and to quote the Calgary Herald: "A great many from remote districts as well as townspeople were present to pay their last respects to the remains of one of Alberta's

pioneers . . . Rev. F. W. Paterson conducted the services. The remains were taken from Smart's undertaking establishment to the Baptist Church and from there to the Union Cemetery."

The tributes written and spoken were many. Stories were told of his generosity, his sense of honor and his strength.

The Ware children had a good home with their grandparents and grew up to be good citizens like their parents.

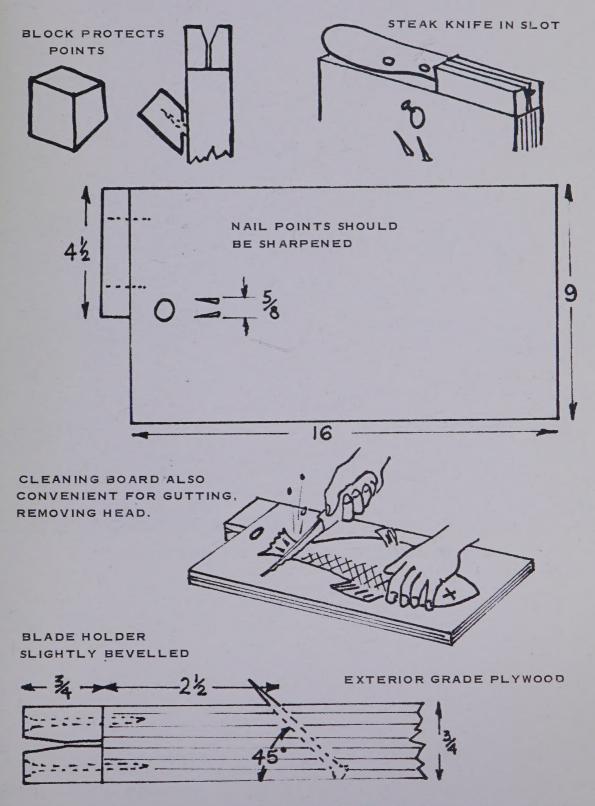
As anyone could see, the expressions of admiration and respect were many and they were varied. But the tribute which should have remained in men's minds the longest was from the funeral oration. "John Ware," said the minister, "was a man with a beautiful skin. Every human skin is as beautiful as the character of the person who wears it. To know John Ware was to know a gentleman, one of God's gentlemen. Never again will I see a colored skin as anything but lovely. He leaves me with the thought that black is a beautiful color one which the Creator must have held in particularly high favor because He gave it to his most cheerful people. Make no mistake about it, black can be beautiful."

A memorial to this Negro cowboy still exists today in the form of his own log cabin which is now located in Dead Lodge Canyon within Dinosaur Provincial Park.

It was through the thoughtfulness and concern of the Kinsman Club of Brooks and the co-operation of the Provincial Parks Division that the cabin was dismantled at its original location and moved the 15 miles to its present location within the park. The cabin has been completely restored and now contains several exhibits closely related to the early ranching days in Alberta.

The writer is deeply indebted to the Glenbow Foundation for information on the personal interview and photographs. This article, which outlined only a few of the many facets in the life of John Ware, could not possibly have been written without the material obtained from the book "John Ware's Country" by Grant MacEwan, Alberta's Lieutenant-Governor.

do-it-yourself CLEANING BOARD



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PART OF OUR PUBLIC LANDS (see story on page 16)

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